

Claims

1. An analog signal level detecting apparatus comprising:

- a first voltage comparator for comparing an input signal with a reference voltage;

- a rectifying circuit for rectifying said input signal;

- a second voltage comparator for comparing an output signal of said rectifying circuit with a threshold voltage specified previously arbitrarily;

- an up/down counting circuit, to which a clock for an up-count operation and a clock for a down-count operation are independently provided, for selectively performing an up-count operation or a down-count operation according to an output signal of said second voltage comparator;

- a first latch circuit for retaining a count value of said up/down counting circuit;

- a timing pulse generating circuit for generating a timing pulse, which determines reset timing of said up/down counting circuit and retaining timing of said first latch circuit, based on an output signal of said first voltage comparator;

- a digital-analog converting circuit for converting an output signal of said first latch circuit into a direct-current voltage.

2. The analog signal level detecting apparatus according to claim 1 further comprising a wave-shaping circuit, which is

provided between said second voltage comparator and said up/down counting circuit, for stopping conveying a change of the output signal of the second voltage comparator in time of a period of a clock with a shorter period of said clock for an up-count operation and said clock for a down-count operation to said up/down counting circuit.

3. The analog signal level detecting apparatus according to claim 2, wherein said wave-shaping circuit includes a second latch circuit for performing an updating operation at the period of a clock with a shorter period of said clock for an up-count operation and said clock for a down-count operation.